

CLAIMS

- 1) Perfected device for the rapid connection and detachment of the tank of floor washing appliance containing liquids with a discharge pipe present in the support that supports the tank, with the special feature that the continuity between the tank interior (1) and the discharge pipe (31) only after the lower end of the base valve of the tank (1), the lower part of which at the end of the lateral edging (41) and equipped with axial perforations (26) has sealed the upper end of the discharge pipe (31).
- 2) Perfected device for the rapid connection and detachment of floor washing device tank containing liquids with a discharge pipe on the support which supports the tank according to the claim 1, having the specific characteristic that the sealing between the lower part of the valve (3) and the bottom of the tank (1) and the upper part of the pipe (31) is by means of a seal (43).
- 3) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe present on the support which supports the tank in accordance with claim 1, with the special feature being that the seal (43) used to ensure the continuity between the tank interior and the discharge pipe is connected to the upper end of the discharge pipe (31) and is firmly fixed between the upper end of the discharge pipe (31) and the retracting edge (38) of the slot in which the discharge pipe is inserted

(31).

4) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe present on the support which supports the tank in accordance with claim 3, the special feature of which is that by pushing downwards on the tank (1) placed inside the cup (2) of the support (3), the lower part of the valve (23) which is conically smoothed reaches the seal (43) which is positioned at the top of the discharge pipe (31). The result is that between the lower part of the valve and the seal (43) a mutual pressure is exerted so as to create a valid sealing action before the liquid begins to flow inside the tank (1) in the discharge pipe (31) and this sealing potential continues until the liquid flow is suspended on the raising of the tank (1) so as to ensure that there is no risk of dripping.

5) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe present on the tank support according to the previous claim, with the special feature being that all the parts (18, 22, 23) which make up the tank assembly (1) are easy both to assemble and dismantle making it easy to replace all the seals should it be necessary (35, 24, 25).

6) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe present on the tank support, according to the claim 1, with the special feature being that the ring shaped seal (24), which is of circular

section, mounted in the slot positioned on the upper part of the valve of the tank out of action, as well as having a sealing action, also acts to secure the valve which, being subject to spring pre-charging force, would otherwise tend to dislodge itself from the slot in which it is inserted.

7) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe present on the tank support according to the claim 1, with the special feature being that the ring shaped seal (25) mounted in the slot on the lower part of the valve (23) is configured in a U-shape so that the internal side adheres to the valve, while the external side which would otherwise tend to expand outwards, thanks to its smoothness and elasticity in fact succeeds in strongly adhering to the internal surfaces (19) of the slot in which the valve is inserted (23) thereby achieving highly effective sealing potential even when it rubs against this surface (19) as the result of valve movement (23).

8) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe present on the tank support according to claim 1, the special feature being that the cup support element (2) which is supported by the handle projection, makes it possible to replace the seal (4) as necessary which presses against the lower part of the valve (23).

9) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe

present on the tank support according to claim 1, the special feature of which is that the tubular end (12) for the attachment of the flexible pipe (10) forms part of the discharge pipe element (31) and is connected in such a manner as to make it easily separable, and therefore easy to replace, from the cup support (2.3) secured in place by the handle projection (1). This means that in the event of the obstruction or breakage of this element (12) the entire support is not affected (2, 3).

10) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe present on the tank support according to claim 1 with the special feature being that the cup (2) of the support (3) includes a portion of pipe covering (7) which descends from the lower surface of the cup base section (2) to protect the tubular end section (12) of the discharge pipe (12, 31) against any obstacles which it might encounter during the actual movement of the floor washing device during its use.

11) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe present on the tank support according to the claim 1, the special feature of which is that the sleeve (3) of the support features an enlargement (6) in order to contain and protect the portion of the flexible piping (10) which comes from the discharging tubular end section (12) in order to protect it against the risk of any obstacles that it might encounter during the actual tool movement.

- 12) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe present on the tank support according to claim 1 the special feature being that with tank (1) inserted in the cup (2) of the support , it is the valve (23) itself which is crossed by the liquid which is discharged (31) from the lower part of tank (1). The result is that on its sealed closure on the disconnection of the tank (1) from cup (2) of the support, as the result of the principle of liquid depression it retains the residual liquid which occupies the volume as defined by its lateral edging (41) and by its axial slot (26) present on the lower end therefore preventing the risk of any dripping.
- 13) Perfected device for the rapid connection and detachment of the floor washing appliance tank containing liquids with a discharge pipe present on the tank support; the special feature of which is that the elements which connect the tank and the support cup (that is the pegs (14) which are positioned on the exterior of the pipe covering (16) of the tank (1)), and the slots (13) arranged according to the "bayonet" connection principle, around the upper edge of the cup (2), are visibly accessible to the operator which means that the connection and disconnection operations are facilitated without having to try and attempt to search for the correct position and without any futile forcing of the parts to be connected.
- 14) Perfected device for the rapid connection and detachment of floor washing appliance tank containing liquids with a discharge pipe

present on the tank support according to claim 13 the special feature of which being that the connection between the tank (1) and support (2) occurs in accordance with the "bayonet attachment" principle, by inserting the pegs (14) which are fitted externally on the pipe covering (16) of the tank (1) on the entrances of the bayonet slots (13) present on the upper part of the cup edging (2), thereby exerting a downward pressure on the tank in order to offset the valve pre-charge pressure (23) , and by rotating the tank so that the pegs (14) are positioned under the slot edging (13) on which there is a special raised cavity (44) to permit the pegs to rise inside, so as to ensure connection stability; another feature is that for disconnection it is necessary to undertake all the connection operations but in reverse order.

Data

The Agent